

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as Express Mail, Airbill No. EV 535603420 US, in an envelope addressed to: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.  
 Dated: April 7, 2006  
 Signature: *Georgina Matos* (Georgina Matos)

PTO-1390 (Rev. 07-2005)

Approved for use through 03/31/2007. OMB 0651-0021

U. S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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<b>TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371</b>		ATTORNEY'S DOCKET NUMBER 562492004100
INTERNATIONAL APPLICATION NO. PCT/GB03/04587	INTERNATIONAL FILING DATE 24 October 2003	U.S. APPLICATION NO. (if known, see 37 CFR 1.5) 10/531,151
		PRIORITY DATE CLAIMED 24 October 2002
<b>TITLE OF INVENTION</b> <b>METHOD AND ARRANGEMENT FOR CHANNEL ESTIMATION IN A WIRELESS COMMUNICATION SYSTEM</b> <b>APPLICANT(S) FOR DO/EO/US</b> <b>Peter B. DARWOOD et al.</b>		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
1. <input type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a submission under 35 U.S.C. 371. 2. <input checked="" type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a submission under 35 U.S.C. 371. 3. <input type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below. 4. <input type="checkbox"/> The US has been elected (Article 31). 5. <input type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371 (c)(2)) a. <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau). b. <input type="checkbox"/> has been communicated by the International Bureau. c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US). 6. <input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)). a. <input type="checkbox"/> is attached hereto. b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4). 7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau). b. <input type="checkbox"/> have been communicated by the International Bureau. c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired. d. <input type="checkbox"/> have not been made and will not be made. 8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). 9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). - 1 page 10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).  Items 11 to 20 below concern document(s) or information included: 11. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98. 12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included. 13. <input type="checkbox"/> A preliminary amendment. 14. <input type="checkbox"/> An Application Data Sheet under 37 CFR 1.76. 15. <input type="checkbox"/> A substitute specification. 16. <input type="checkbox"/> A power of attorney and/or change of address letter. 17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821 – 1.825. 18. <input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4). 19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).		

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U.S. APPLICATION NO. (if known, see 37 CFR 1.5) 10/531,151	INTERNATIONAL APPLICATION NO. PCT/GB03/04587	ATTORNEY'S DOCKET NUMBER 562492004100																																																																																																	
20. <input checked="" type="checkbox"/> Other items or information: <ul style="list-style-type: none"> <li>• Copy of Notification of Missing Requirements - 2 pages</li> <li>• Return Receipt Postcard</li> </ul>																																																																																																			
The following fees have been submitted <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">21. <input type="checkbox"/> Basic national fee (37 CFR 1.492(a)) .....</td> <td style="width: 20%; text-align: right;">\$300</td> <td style="width: 20%; text-align: right;">CALCULATIONS</td> </tr> <tr> <td><input type="checkbox"/> Examination fee (37 CFR 1.492(c)) If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4) .....</td> <td style="text-align: right;">\$0</td> <td style="text-align: right;">PTO USEONLY</td> </tr> <tr> <td>All other situations .....</td> <td style="text-align: right;">\$200</td> <td></td> </tr> <tr> <td>23. <input type="checkbox"/> Search fee (37 CFR 1.492(b)) If the written opinion of the ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4) .....</td> <td style="text-align: right;">\$0</td> <td></td> </tr> <tr> <td>Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority.....</td> <td style="text-align: right;">\$100</td> <td></td> </tr> <tr> <td>International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB.....</td> <td style="text-align: right;">\$400</td> <td></td> </tr> <tr> <td>All other situations .....</td> <td style="text-align: right;">\$500</td> <td></td> </tr> <tr> <td colspan="2" style="text-align: right;"><b>TOTAL OF 21, 22 and 23 =</b></td> <td style="text-align: right;"><b>\$ 0.00</b></td> </tr> <tr> <td colspan="3"> <input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.           </td> </tr> <tr> <td>Total Sheets</td> <td>Extra Sheets</td> <td>Number of each additional 50 or fraction thereof (round up to a whole number)</td> </tr> <tr> <td>0 - 100 =</td> <td>0 /50 =</td> <td>0</td> </tr> <tr> <td colspan="3" style="text-align: right;"><b>x \$250.00</b></td> <td style="text-align: right;"><b>\$ 0.00</b></td> </tr> <tr> <td colspan="3">Surcharge of \$130 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).</td> <td style="text-align: right;">\$ 130.00</td> </tr> <tr> <td colspan="3"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>CLAIMS</th> <th>NUMBER FILED</th> <th>NUMBER EXTRA</th> <th>RATE</th> </tr> <tr> <td>Total claims</td> <td>26 - 26 =</td> <td>0</td> <td>x 50.00</td> </tr> <tr> <td>Independent claims</td> <td>3 - 3 =</td> <td>0</td> <td>x 200.00</td> </tr> <tr> <td colspan="2">MULTIPLE DEPENDENT CLAIM(S) (if applicable)</td> <td>+ 360.00</td> <td>0.00</td> </tr> </table> </td> <td style="text-align: right;"><b>\$ 130.00</b></td> </tr> <tr> <td colspan="3" style="text-align: right;"><b>TOTAL OF ABOVE CALCULATIONS =</b></td> <td style="text-align: right;"><b>\$ 130.00</b></td> </tr> <tr> <td colspan="3"> <input checked="" type="checkbox"/> Applicant claims small entity status. 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- a.  A check in the amount of \$ \_\_\_\_\_ to cover the above fees is enclosed.
- b.  Please charge my Deposit Account No. 03-1952 in the amount of \$ 130.00 to cover the above fees.  
A duplicate copy of this sheet is enclosed.
- c.  The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 03-1952. A duplicate copy of this sheet is enclosed.
- d.  Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. **Credit card information should not be included on this form.** Provide credit card information and authorization on PTO-2038

NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.

SEND ALL CORRESPONDENCE TO:

  
SIGNATURE

Michael S. Garrabrants

NAME

CUSTOMER NUMBER: 25226

51,230

REGISTRATION NUMBER



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
10/531,151	Peter B Barwood	562492004100
INTERNATIONAL APPLICATION NO.		
PCT/GB03/04587		
I.A. FILING DATE		PRIORITY DATE
10/24/2003		10/24/2002
CONFIRMATION NO. 4680		
371 FORMALITIES LETTER		
		
*OC000000017975116*		

Date Mailed: 02/07/2006

## NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as a Designated / Elected Office (37 CFR 1.495).

- Copy of the International Application filed on 04/12/2005
- Copy of the International Search Report filed on 04/12/2005
- Information Disclosure Statements filed on 04/12/2005
- Request for Immediate Examination filed on 04/12/2005
- U.S. Basic National Fees filed on 04/12/2005
- Priority Documents filed on 04/12/2005

The applicant needs to satisfy supplemental fees problems indicated below.

The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

- Oath or declaration of the inventors, in compliance with 37 CFR 1.497(a) and (b), identifying the application by the International application number and international filing date.
- To avoid abandonment, a surcharge (for late submission of filing fee, search fee, examination fee or oath or declaration) as set forth in 37 CFR 1.492(h) of \$130 for a non-small entity, must be submitted with the missing items identified in this letter.

### SUMMARY OF FEES DUE:

Total additional fees required for this application is \$130 for a Large Entity:

- \$130 Surcharge.

**ALL OF THE ITEMS SET FORTH ABOVE MUST BE SUBMITTED WITHIN TWO (2) MONTHS FROM THE DATE OF THIS NOTICE OR BY 32 MONTHS FROM THE PRIORITY DATE FOR THE APPLICATION, WHICHEVER IS LATER. FAILURE TO PROPERLY RESPOND WILL RESULT IN ABANDONMENT.**

The time period set above may be extended by filing a petition and fee for extension of time under the provisions of 37 CFR 1.136(a).

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

*A copy of this notice **MUST** be returned with the response.*

LAMONT M HUNTER

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Telephone: (703) 308-9140 EXT 201

**PART 2 - OFFICE COPY**

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U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
10/531,151	PCT/GB03/04587	562492004100

FORM PCT/DO/EO/905 (371 Formalities Notice)